Solutions for Bridges

- High Performance Waterproofing Systems
- Expansion Joints
- Combined Kerb & Bridge Drainage

www.pitchmasticpmb.com
Pitchmastic PmB International has in-house knowledge, practical application and technical experience that spans over 70 years. Even from the early days, Pitchmastic PmB International’s research and development was key to its success in an embryonic, technically challenging and rapidly evolving construction marketplace.

Pitchmastic PmB International’s global activities are dealt with from a number of offices around the world and managed through the company’s Middle East office located in the UAE as well as regional branches in Qatar, Oman, Kuwait and Singapore. Pitchmastic PmB International has a dedicated management team, technicians, equipment and material warehousing to support all their client needs.

Backed by parent company RPM Inc, Pitchmastic PmB International continues to thrive and develop opportunities around the world by providing clients with professional customer care, full technical, operational and product support.

Pitchmastic PmB International is a specialist manufacturer supplier and installer of high performance waterproofing systems, expansion joints and combined kerb & bridge drainage on a global basis.

Bridges are at constant attack and under stress as water, chlorides, acid rain, de-icing salts and freeze-thaw cycles act on them. Extreme weather cycles, the impact of traffic and vibration place bridges under further stress. As steel reinforcing bars corrode and expand, concrete can crack and deteriorate. The costly disruption caused by resulting repair work impacts on both traffic and safety.

Bridge repairs can often amount to 10-30% of the updated construction cost, and large repairs may even exceed the updated construction cost and still be the preferred option when compared to the cost of traffic interruption and demolition. As moisture is the most significant factor in concrete deterioration, incorporating sufficient waterproofing at the design stage is by far the most cost-effective option.
PmB

PmB is a two part, spray applied, durable corrosion protection and waterproofing material. The high performance system is 100% polyurethane containing no fillers or additives and is VOC free. Once applied, PmB has exceptional bond strength to all commonly used substrates, has excellent crack bridging capability and a life expectancy in excess of 30 years. The system has gained British Board of Agrément (BBA) approval for use as a damp proof and waterproofing membrane for internal and external tanking. The system holds approvals in many continents including Europe, North America, the Middle East and Far East.

**Features & Benefits**
- Roads and Bridges as well as Tunnels
- Two component PUR spray system 100% solids reactive resin content Solvent free
- No fillers
- Rapid setting – 5-8 seconds gel time Tack free after approximately 1 minute
- Can be walked on after approximately 10 minutes
- Elastic after approximately 45 minutes

**Fast and Easy Installation**
PmB membrane is quicker and easy to install and is applied as a single coat or in multiple layers. The two component materials of the membrane system are mixed at the spray gun and applied to the substrate using compressed air.

The spray equipment allows complete mobility, spraying vertical surfaces, overhead, behind pipe bays or over corners and edges quickly and effectively. This is achieved due to the membranes ability to gel in seconds preventing curtaining and providing instant protection.

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**Britdex MDP**

Britdex MDP is a 100% effective seamless bridge deck waterproofing membrane, flexible and tough enough to outlast the design life of many structures. Comprising of rapid cure, cold spray applied MMA resin material to be applied by the conventional spray method, brush or roller and as a one or two coat system.

**Features & Benefits**
- Seamless coating without vulnerable joints
- Quick and easy sprayable application with rapid cure
- Excellent crack bridging capability
- Durable effective protection against corrosion
- Excellent adhesion to steel
- Versatile system—accommodates all surface contours, horizontal and vertical
- Application by one or two coats

The system can be applied across a wide range of climatic conditions allowing application virtually all year round. When applied to dry surfaces Britdex MDP is unaffected by moisture, rain or high humidity.

The system is durable, resisting damage during surface operations and has excellent cohesive and bond strength to the bridge deck and surfacing.

**Typical applications include:**
- Concrete bridge decks
- Steel bridge decks
- Bridge piers
- Culverts
- Tunnels

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**Britdex CPM TredSeal**

CPM TredSeal is a combined waterproof wearing system, offering 100% effective waterproofing, wearing course and skid-resistance in a single surfacing layer, many times lighter than mastic asphalt. Ease and speed of application to concrete, asphalt, steel or aluminum substrates results in minimal possession times and a faster return to service. CPM TredSeal can be used on a wide range of structures subject to differing traffic conditions, allowing them to be lighter by design.

**Features & Benefits**
- Cost Effective
- Based on BBA approved technology
- Rapid set can be trafficked within two hours
- Easy and quick application
- Aesthetically pleasing finish
- Tough, flexible and hard wearing waterproof membrane
- Versatile surfacing, suitable for application on a number of different surfaces
- This system can be applied even at low temperatures
- Waterproof

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**Key material performance**
- Class leading adhesion to substrates
- Weather resistance
- Crack bridging
- Tear resistance
- Abrasion resistance
- Water vapour and gas permeability
- Chemical resistance
- Resistant to root and microbial attack
- Sound insulation
- Homogenous watertight seal

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**HAPAS Roads and Bridges**

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**BridgeCare**

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**Waterproofing**

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**PITCHMASTIC PmB**

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**Britdex MDP**

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**Britdex CPM TredSeal**

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**HAPAS Roads and Bridges**

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**BridgeCare**
Pitchmastic PMB International has extensive experience in the supply and installation of expansion joints which have been carefully developed to provide safe, efficient and economical methods of sealing construction gaps.

The bridge expansion joint range of product caters for movements from 12mm – 1600mm and includes the “Britflex BEJ” which is one of the most popular joints used on highway and trunk roads throughout the world.

Features & Benefits
- Rapid on site assembly
- Minimal disruption to traffic
- Perfectly suited for lane by lane installation
- Minimised future maintenance costs
- Easy to install and detail at design stage
- Adaptable to numerous applications
- Excellent global track record

Combined kerb & bridge drainage units are now widely used and specified on bridge decks whether they are new build or part of a refurbishment scheme. Drainage is an essential requirement on all bridges. Deck mounted systems provide continuous surface & sub surface drainage.

Existing systems are traditionally metallic, which are heavy, raising Health and Safety issues for the installers. Metallic units place additional weight on the structure. In addition, metallic units are prone to oxidization which can spoil the appearance of a structure, particularly as the systems are a highly visible element of a project. This results in ongoing expensive maintenance.

Features and Benefits
- Units comply with manual handling legislation
- Aesthetically pleasing
- Hydraulics - Produces smooth high quality channel invert
- Chemical resistance
- Impact resistance
- High quality
- Compliant to BS EN 1433 specification
- Lightweight non metallic
- Precision manufacturing
- Colour coding options
- Half battered and 45 degree splayed
- Wide range of widths and depths available
- Surface and subsurface drainage capability

### Movement Table

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<th>40</th>
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Pitchmastic PmB International has the capability of supplying and installing all products offering their clients the comfort of single source responsibility, whether it be undertaking complex expansion joint projects or large waterproofing schemes requiring multiple crews.

Pitchmastic PmB International's team liaise closely and offer technical support and site assistance to all commercial clients, consultants and main contractors - they stay involved through the whole project life cycle:

**International Test Accreditation**
- Department of Transport BD47/99, BBA HAPAS UK
- LSETR Cert RAT 9359 Finland
- BAM Institute ZTV-BEL B3/87 Germany
- LTA Singapore
- EMPA Cert 4944-1-2-3 Switzerland
- THSR Specification 07440 Taiwan
- New Jersey Rail, New York DOT
- Various approvals GCC wide

**International Approvals**

**Step 1:** Technical support & consultancy
**Step 2:** Formulator & manufactured solutions
**Step 3:** Comprehensive quotation - specialist sub-contractor
**Step 4:** Expert local knowledge & labour resource
**Step 5:** Supply & install solution provider
**Step 6:** Quality control & guarantee
**Step 7:** Project completion & financial closure
**Step 8:** Repeat business & recommendations

Delivering exceptional projects worldwide
**Project: RA167 Jamal Al Naser Street – Construction, Completion and Maintenance of Roads, Overpasses, Storm Water Drainage, Sewer and Other Services**  
Client: Ministry of Public Work - Kuwait  
Main Contractor: ROBT JV  
Project in brief: 420,000m² of PmB Bridge Deck Waterproofing was applied to 15km of Elevated Segmental Viaducts and Ramps.

**Project: Bosphorus 1 Bridge, Turkey**  
Product: Britdex MDP  
Main Contractor: EPO  
Project in brief: Britdex MDP waterproofing applied to steel bridge deck of this world famous structure.

**Project: Metro Manila Skyway, Philippines**  
Product: Britflex BEJ  
Client: Philippines Highways Department  
Main Contractor: Citra Marga  
Project in brief: Installation of 414 metres of Britflex BEJ.

**Project: Rontal Bridge, Lucerne, Switzerland**  
Product: Kerb and drainage units  
Client: Basler & Hofmann  
Project in brief: 1500 linear metres of Envirodeck units were supplied to this major project in Switzerland.